

Substitute for Form 1449A (Rev. 10/95)

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

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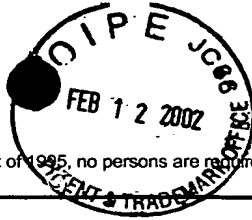
Application Number	08/579,072
Filing Date	December 22, 1995
First Named Inventor	Adam S. Wyszynski
Art Unit	2744
Examiner Name	N. Maung
Attorney Docket Number	49581-P006US-09604915

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
[Handwritten mark]	A	4,581,643		Carlson	04-08-1986	[Handwritten mark]
	B	4,726,072		Yamashita et al.	02-16-1988	
	C	4,742,566		Nordholt et al.	05-03-1988	
	D	4,979,230		Marz	12-18-1990	
	E	5,038,404		Marz	08-06-1991	
	F	5,060,297		Ma et al.	10-22-1991	
	G	5,140,198		Atherly et al.	08-18-1992	
	H	5,200,826		Seong	04-06-1993	
	I	5,311,318		Dobrovoly	05-10-1994	
	J	5,321,852		Seong	06-14-1994	
	K	5,390,346		Marz	02-14-1995	
	L	5,428,836		Sanecki et al.	06-27-1995	
	M	5,563,545		Scheinberg	10-08-1996	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
[Handwritten mark]	N	Meyer, Robert G. "A 1-GHz BiCMOS RF Front-End IC." IEEE Journal of Solid-State Circuits; Vol. 29 No. 3 (March 1994): 350-355.	
	O	Kinget, Peter and Michiel Steyaert. "A 1 GHz CMOS Upconversion Mixer". IEEE Custom Integrated Circuits Conference. (1996) 197-200.	
	P	Crols, Jan, and Michel S. J. Steyaert. "A 1.5 GHz Highly Linear CMOS Downconversion Mixer." IEEE Journal of Solid-State Circuits. Vol. 30 No. 7 (July 1995). 736-742.	
	Q	Kuhn, William B., William Stephenson, and Aicha Elshabini-Riad. "A 200 MHz CMOS Q-Enhanced LC Bandpass Filter." IEEE Journal of Solid-State Circuits. Vol. 31 No. 8 (August 1996). 1112-1122.	
	R	Razavi, Behzad, Kwing F. Lee, Ran-Hong Yan, and Robert G. Swartz. "A 3-GHz 25-mW CMOS Phase-Locked Loop." 1994 Symposium on VLSI Circuits Digest of Technical Papers. (1994). 131-132.	
	S	McGinn, Mike. "An Advanced I.F. Amplifier & AFT System Suitable for HDTV." IEEE Transactions on Consumer Electronics. Vol. 36 No. 3 (August 1990) 407-414.	
	T	Okanobu, Taiwa, Hitoshi Tomiyama, and Hiroshi Arimoto. "Advanced Low Voltage Single Chip Radio IC." IEEE Transactions on Consumer Electronics. Vol. 38 No. 3. (August 1992) 465-475.	
	U	Crols, Jan, and Michiel Steyaert. "An Analog Integrated Polyphase Filter for a High Performance Low-IF Receiver." 1995 Symposium on VLSI Circuits Digest Of Technical Papers. (1995) 87-88.	
	V	Anadigics, Inc. CATV/TV/CABLE MODEM UPCONVERTER MMIC. Warren NJ (April 22, 1998).	
	W	Anadigics Inc. VHF/UHF CATV/TV Tuner Downconverter. Warren, NJ. (April 22, 1998).	
	X	Anadigics, Inc. Anadigics Technical Brief. Upconverter MMIC for CATV Preliminary. Warren, NJ. (January 11, 1994).	
	Y	Racanello, Marco et al. "RF BiCMOS Technology for Highly Integrated Wireless Systems." 1999 IEEE RFIC Symposium. (1999)	
	Z	Kimura, Katsuji. "A Bipolar Four-Quadrant Analog Quarter-Square Multiplier Consisting of Unbalanced Emitter-Coupled Pairs and Expansions of Its Input Ranges." IEEE Journal of Solid-State Circuits. Vol. 29 No. 1 (January 1994) 46-55.	
	AA	Archer, John, and John Granlund, and Robert E. Mauzy. "A Broad-Band UHF Mixer Exhibiting High Image Rejection over a Multidecade Baseband Frequency Range." IEEE	



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	08/579,072		
		Filing Date	December 22, 1995		
		First Named Inventor	Adam S. Wyszynski		
		Group Art Unit	2744		
		Examiner Name	N. Maung		
Sheet	2	of	3	Attorney Docket Number	49581-P006US-09604915

		Journal of Solid-State Circuits, Vol. SC-16 No. 4 (August 1981) 385-392.	
	AB	Boutin, Noel. "Complex Signals: Part 1" RF Featured Technology. (December 1989). 27-75.	
	AC	"Double-balanced mixer and oscillator" Phillips Semiconductors. (November 7, 1997). 1-11	
	AD	Gilbert, Barrie. "Demystifying the Mixer" Analog Devices Inc. (April 1994). 1-58.	
	AE	Kuhn, William B. "Design of Monolithically Integrated Radio Transceivers" Kansas State University.	
	AF	Sato, Akihiro, et al. "Development of an Adjustment Free Audio Tuner IC" IEEE Transactions on Consumer Electronics, Vol. 42 No. 3. (August 1996). 328-334.	
	AG	Scheinberg, N., et al. "A GaAs Up Converter Interated Circuit for a Double Conversion Cable TV "Set-Top" Tuner" International Conference on Consumer Electronics. (June 1993). 108-109.	
	AH	Maier, G.M., et al. "Double Conversion Tuner a Must for the Future?" IEEE Transaction on Consumer Electronics, Vol. 38, No. 3. (August 1992). 384-388.	
	AI	Moloney, Daniel M., et al. "Expanded Bandwidth Requirements in CATV Applications." NCTA Technical Papers. (1992). 200-206.	
	AJ	Gilbert, Barrie and Baines, Rupert. "Fundamentals of Active Mixers" Applied Microwave and Wireless. (1995). 10-27.	
	AK	Muller, J-E., et al. "A Double-Conversion Broad Band TV Tuner with GaAs ICs." GaAs IC Symposium Technical Digest. (1984). 97-98.	
	AL	Nakatsuka, T., et al. , "Low Distortion and Low Noise Oscillator Mixer for CATV Converters." GaAs Symposium Technical Digest. (1988). 161-164.	
	AM	Brady, Vernon, et al. "Development of a Monolithic FET Ka-Band Single Side Band UFConverter and Image Reject Downconverter." GaAs Symposium Technical Digest (October 1989) 189-192.	
	AN	Ablassmeier, Ulrich, et al. "GaAs FET Upconverter for TV Tuner" IEEE Transactions on Electron Devides, Vol ED-27, No. 6. (June 1980). 1156-1159.	
	AO	Maas, Stephen A. "A GaAs MESFET Mixer with Very Low Intermodulation" IEEE Transactions on Microwave Theory and Techniques, Vol. MTT-35, No. 4. (April 1987). 425-429.	
	AP	Pratt, William J. "High Linearity HBT Amplifier Targets Multicarrier Systems" RF Design. (March 1996). 47-54.	
	AQ	Pandula, Louis. "Image Reect and Image Canceling Mixers" RF Design. (April 1995). 60-65.	
	AR	Leffel, Michael. "Intermodulation Distortion in a Multi-Signal Environment" RF Design (June 1995). 78-84.	
	AS	Meyer, Robert G. "Intermodulation in High-Frequency Bipolar Transistor Integrated-Circuit Mixers." IEEE Journal of Solid-State Circuits, Vol. SC-21, No. 4. (August 1986). 534-537.	
	AT	Giles, Martin. "The LM 1823: A High Quality TV Video I.F. Amplifier and Synchronous Detector for Cable Receivers." National Semiconductor Corporation. (March 1985). 1-16.	
	AU	Svelto, F., et al. "A Low-Voltage Topology After CMOS RF Mixers." IEEE Transactions on Consumer Electronics., Vol. 45, No. 2 (May 1999). 299- 309.	
	AV	Otaka, Shoji, et al. "A Low Local Input Power 1.9 GHz Si-Bipolar Quadrature Modulator without Any Adjustment." Bipolar/BiCMOS Circuits and Technology Meeting. (1994). 171-174.	
	AW	Gilbert, Barrie. "The MICROMIXER: A highly Linear Variant of the Gilbert Mixer using a Bisymmetric Class-AB Input Stage" IEEE Journal of Solid-State Circuits, Vol. 32, No. 9, (September 1997). 1412-1423.	
	AX	Ducourant, Thierry, et al. "A 3 Chip GaAs Double Conversion TV Tuner System with 70 db Image Rejection." Monolithic Circuits Symposium Digest of Papers. (1988). 87-90.	
	AY	Torji, K., et al. "monolithic Integrated VHF TV Tuner." IEEE Transactions on Consumer Electronics, Vol. CE-26. (May 1980). 180-189.	
	AZ	Altes, Stephen K., et al. "Monolithic RC All-Pass Networks with Constant-Phase -Difference Outputs." IEEE Transactions on Microwave Theory and Techniques, Vol. MTT-34, No. 12. (December 1986). 1533-1537.	
	BA	MC13143: Ultra Low Power DC-2.4 GHz Linear Mixer. Motorola, Inc. Issue 2. (1996). 1-8.	



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Sheet	3	of	3	Attorney Docket Number	49581-P006US-09604915

BB	HP 8561A and HP 8562A/B Portable Spectrum Analyzers. Hewlett-Packard. (July 1989)
BC	MC44302: Advanced Multi-Standard TV Video/Sound IF. Motorola, Inc. (June 17, 1994)
BD	"NCTA Recommended Practices for Measurements on Cable Television Systems." National Cable Television Association. 2nd Ed. (1993). 1-13
BE	Maier, Gerd M. "New System Approach to TV Tuner Design." IEEE Transactions on Consumer Electronics, Vol. 36, No. 3. (August 1990). 403-406.
BF	Charbon, Edoardo, et al. "A Performance-Driven Router for RF and Microwave Analog Circuit Design." Department of Electrical Engineering and Computer Sciences, University of California, Berkeley.
BG	Koullias, Iconomos, A., et al. "A 900MHz Transceiver Chip Set for Dual-Mode Cellular Mobile Terminals." IEEE International Solid-State Circuits Conference. (1993). 140-141.
BH	McDonald, Mark D. "A 2.5GHz BiCMOS Image-Reject Front-End" IEEE International Solid-State Circuits Conference. (1993). 144-145.
BI	Lovelace, David, et al. "Silicon Upconverter RF IC Simplifies Cable Modem Designs" Microwaves & RF (March 1997). 136-142.
BJ	Lovelace, David, et al. "Innovative Simulator Models Silicon Upconverter RF IC" Microwaves & RF. (April 1997). 106-109.
BK	Farmer, James O. "Specifications for Tuner Design for use in Cable Ready Television Receivers and VCRs." IEEE Transactions on Consumer Electronics, Vol. 36, No. 3., (August 1990). 660-668.
BL	Abidi, Asad A. "Direct-Conversion Radio Transceivers for Digital Communications." IEEE International Solid-State Circuits Conference. (1995). 186-187; 363-364.
BM	Kokozinski, Rainer, et al. "Microwave Wideband Amplifiers In Bulk-CMOS/SIMOX Technologies." IEEE International Solid-State Circuits Conference. (1995). 146-147; 188-189.
BN	Kimura, Katsuji. "The Ultra-Multi-Tanh Technique for Bipolar Linear Transconductance Amplifiers." IEEE Transactions on Circuits and Systems -1: Fundamental Theory and Applications. Vol. 44, No. 4. (April 1997). 288-302.
BO	Al-Hashimi, Bashir. "Understand the Fundamentals of Passive Video Filters." Microwaves & RF. (May 1996). 171-178.
BP	Long, John R., et al. "A Low-Voltage Silicon Bipolar RF Front -End for PCN Receiver Applications." IEEE International Solid-State Circuits Conference. (1995). 104-105; 140-141.
BQ	Sabin, William E. & Edgar O. Schoenike. "Single -Sideband Systems & Circuits." McGraw Hill Book Company. New York. (1987). 88-134, 181-213.

Examiner Signature	<i>Ny Ls M</i>	Date Considered	4/14/03
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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